

**Before the Federal Communications Commission**

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*IN RE*

IMPROVING 9-1-1 RELIABILITY

RELIABILITY AND CONTINUITY OF COMMUNICATIONS NETWORKS,  
INCLUDING BROADBAND TECHNOLOGIES

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*ON NOTICE OF PROPOSED RULEMAKING*

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**REPLY COMMENTS OF  
NENA: THE 9-1-1 ASSOCIATION**

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NENA: The 9-1-1 Association respectfully submits the following reply to comments received pursuant to the *Notice of Proposed Rulemaking* adopted by the Commission on March 20<sup>th</sup>, 2013.

## REPLY

### **I. 9-1-1 network reliability is a national concern requiring minimum national standards.**

NENA readily acknowledges – and applauds – the efforts of Verizon, Frontier, and other carriers and 9-1-1 system service providers (SSPs) to improve the reliability and resilience of their networks and other facilities in response to the widespread vulnerabilities revealed by the Derecho.<sup>1</sup> These voluntary remedial actions are an appropriate and important component of our national response to the Derecho’s revelations. They are not, however, alone sufficient to address the long-term reliability improvements needed in the nation’s 9-1-1 systems. Contrary to some commenters’ views,<sup>2</sup> NENA is convinced that minimum reliability requirements premised on risk-based analysis of 9-1-1 system vulnerabilities are a superior alternative to self-policed, and therefore often ignored, compliance with industry-developed best practices. It is true that the network links and other facilities that comprise 9-1-1 systems are prone to idiosyncrasy.<sup>3</sup> However, NENA believes that the performance requirements proposed by the Commission are stated with a sufficient level of generality so as to make compliance feasible for the vast majority of 9-1-1 systems. Moreover, if the Commission were to adopt NENA’s proposal to require risk-based analysis and implementation of alternative network

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<sup>1</sup> *E.g.*, Verizon and Verizon Wireless, *Comments* at 3-6 (May 13, 2013); Frontier Comm’cns, *Comments* at 2-3 (May 13, 2013).

<sup>2</sup> *E.g.*, Telecomm’cns Ind. Assoc., *Comments* at 2 (May 13, 2013); United States Telecom Assoc., *Comments* at 4-5 (May 13, 2013).

<sup>3</sup> *E.g.*, Alaska Comm’cns Sys. (hereinafter “ACS”), *Comments* at 10 (May 13, 2013).

reliability actions, the Commission's general requirements could form the basis of more individually-tailored solutions that better meet the needs of PSAPs, carriers, and system service providers.<sup>4</sup> Finally, NENA notes that national minimum standards are appropriate since even current-generation 9-1-1 and E9-1-1 systems operated by competitive SSPs are no longer necessarily intra-state.<sup>5</sup>

## **II. The Commission should clarify the demarcation point for 9-1-1 network reliability requirements.**

The initial comments filed in this proceeding reveal some degree of confusion with respect to precisely which network elements are the responsibility of carriers and which are the responsibility of PSAPs/9-1-1 authorities or SSPs for purposes of ensuring 9-1-1 system reliability. NENA believes the Commission should conclusively resolve this question: Without a clear right to establish needed path diversity using any appropriate and available transport technology, the imposition of new 9-1-1 reliability requirements could lead to protracted and fruitless negotiations, multiple petitions for reconsideration or declaratory relief, and a delay in the implementation of critical 9-1-1 system reliability improvements. Consequently, NENA believes that the Commission should clarify that responsibility for physical route diversity lies with the originating carrier for Central Office (CO) to Selective Router (SR) trunks. From the SR to the served PSAP, however, NENA agrees with Alaska Communications Systems (ACS) that route diversity should be the responsibility of 9-1-1 authorities or PSAPs.<sup>6</sup> This model is

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<sup>4</sup> *Accord ACS Comments* at 10 (May 13, 2013); Nat'l Assoc. of Telecomm'ns Offs. & Advisors, *Comments* at 3 (May 13, 2013);

<sup>5</sup> Many database links, for example, now connect with widely dispersed data centers in Colorado, Florida, Maryland, Washington, etc., regardless of where a 9-1-1 call originates or terminates. *Contra* Boulder Regional Emergency Telephone Service Authority (hereinafter "BRETSA"), *Comments* at 2 (May 13, 2013).

<sup>6</sup> ACS, *Comments* at 3 (May 13, 2013).

consistent with the King County decision, and clarifies the quasi-interconnection right of 9-1-1 authorities to establish alternative SR-to-PSAP links. NENA notes that the view of this structure advanced by ACS and NTCA is incomplete: PSAPs need not receive their “last mile” service exclusively over LEC-provided copper facilities.<sup>7</sup> Today, a number of less-costly technologies such as microwave, free-space optical, encapsulated IP transport, and even lower-cost satellite service are available, and can meet PSAPs’ needs for last-mile redundancy.<sup>8</sup> By making explicit the right of PSAPs to utilize alternative transport for their SR-to-PSAP links, NENA believes that the Commission can balance the needs of the 9-1-1 community with those of the carrier community while improving all aspects of 9-1-1 reliability.

**III. The Commission should issue a Further Notice to consider requiring carriers and system service providers to maintain a 24x7 “9-1-1 Resolution Team.”**

While the Commission did not explicitly request comment on the creation of dedicated 9-1-1 resolution teams in the *Notice*, a number of commenters have noted the potential benefits of such an arrangement.<sup>9</sup> NENA agrees that such teams would be incredibly beneficial: As many commenters noted, 9-1-1 systems are comparatively unusual in topology and operation. Consequently, many in the 9-1-1 community have experienced occasions when carrier or SSP personnel are unfamiliar with the provisioning, maintenance, and operational minutiae of 9-1-1 systems. This lack of knowledge

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<sup>7</sup> ACS, *Comments* at 10; NTCA – The Rural Broadband Assoc., *Comments* at 6 (May 13, 2013). *Accord*

<sup>8</sup> *E.g.*, Echostar Corp., *Comments* at 2 (May 13, 2013); *see* Edison Elec. Inst., *Comments* at 5 (May 13, 2013).

<sup>9</sup> ACS, *Comments* at 3 (May 13, 2013); City of Alexandria, Virginia, *Comments* at 3 (May 13, 2013); Nat’l Assoc. of Telecomm’cns Officers & Advisors (hereinafter “NATOA”), *Comments* at 9 (May 13, 2013).

leads to poor decision-making, longer repair times, confusion, and frustration, both for carriers/SSPs and for 9-1-1 authorities. NENA therefore recommends that the Commission consider, in a Further Notice, if necessary, requiring carriers/SSPs larger than a certain size to maintain dedicated, 24x7 9-1-1 resolution teams with experience in the design, construction, maintenance, and operation of 9-1-1 systems. Such teams should be available to help resolve outages or other issues with 9-1-1 systems. Indeed, NENA believes that some larger carriers already maintain teams with a similar structure or purpose.

### CONCLUSION

The Commission should promulgate national minimum standards for circuit diversity auditing and central office backup power consistent with the proposals in the *Notice* and with NENA's comments. The Commission should also consider explicitly declaring that PSAPs and 9-1-1 authorities have a right to employ alternative transport mechanisms from Selective Routers to served PSAPs. Finally, the Commission should issue a Further Notice to consider requiring the creation of dedicated 9-1-1 resolution teams.

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